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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/053,773 | 01/22/2002 | Gunter Schubert | VAW-7 | 4264 |

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EXAMINER

KOCH, GEORGE R

ART UNIT PAPER NUMBER

1734

DATE MAILED: 10/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/053,773

Applicant(s)

SCHUBERT ET AL.

Examiner

George R. Koch III

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 9-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 10.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The objections to the specification recited in the office action mailed on 4-9-03 are removed due to the amendment filed 11-02-2002 which corrected the errors previously cited.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Hishinuma (US Patent 6,197,136 B1).

Hishinuma discloses a method for setting a process for the manufacture of sealing seams, in which the interface temperature at the interface between the sealing partners (Figure 1, item 1) is measured using a temperature measuring element (Figure 1, element 5, identified as a temperature sensor), characterized in that the process is

set based on the course of time of the interface temperature during and after heat input during the sealing (see, for example, Figure 3).

As to claim 2, Hishinuma discloses that the time-temperature-pressure progression during heat input is set (see, for example, column 5, lines 25 to column 6, line 20, which discloses such an example).

4. Claims 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Meka (P. Meka and F.C. Stehling, "Heat Sealing of Semicrystalline Polymer Films. I. Calculation and Measurement of Interfacial Temperatures: Effect of Process Variables on Seal Properties," from IDS, Paper #6).

Meka discloses a method for setting a process for the manufacture of sealing seams, in which the interface temperature at the interface between the sealing partners (see, for example, Figure 4, and page 93) is measured using a temperature measuring element (Figure 4, item labeled "micro-thermocouple"), characterized in that the process is set based on the course of time of the interface temperature during and after heat input during the sealing (see, for example, Figures 5 and 6).

As to claim 2, Meka discloses that the time-temperature-pressure progression during heat input is set (see, for example, page 102).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claim 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Hishinuma or Meka as applied to claims 9 and 10 above, and further in view of Jurrius (US Patent 5,616,199).

Neither Hishinuma nor Meka as separately applied to claims 9 and 10 above, disclose setting time of a tightness check and/or mechanical loadability after heat input is set.

Jurrius discloses that it is known to set a cooling or curing time subsequent to the heat input in bonding operations, which is a period of time prior to using the items (see column 8, line 3-47). In the context of packaging, this would be the period of time prior to loading. Jurrius discloses that this time period is necessary to ensure that the bonding location is properly congeals without "weak locations". Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to set a time prior to loadability or use of the seams of Hishinuma or Meka by use of the cure or cool time of Jurrius in order to create proper bond seams.

As to the limitations of claims 12-17, Jurrius discloses a variety of temperature ranges (for example, the table on column 14) and the concept of variable times based on materials used (see column 9). Jurrius also discloses exceeding the melting temperature and the cooling temperatures, i.e., the solidification or recrystallization temperature. Jurrius also discloses a variety of example time and temperature examples (see columns 15-18) as well as monitoring or plotting the various temperature locations (see Figures 6-8 for examples of such plots). Furthermore, one in the art would immediately recognize that the integral of the time temperature progression is a measurement of the energy put into the sealing seam. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized evaluation of the integrals of various time temperature progressions and to have monitored the times certain temperatures are achieved in order to achieve proper control of the bonding process and to ensure proper bonding.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R. Koch III whose telephone number is (703) 305-3435 (TDD only). If the applicant cannot make a direct TDD-to-TDD call, the applicant can communicate by calling the Federal Relay Service at 1-800-877-8339 and giving the operator the above TDD number. The examiner can normally be reached on M-Th 10-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (703) 308-3853. The fax phone

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numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



George R. Koch III
October 5, 2003



RICHARD CRISPINO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700